

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/049,586

DATE: 03/01/2002 (?)

TIME: 14:44:19

Input Set : A:\W127221.txt

```
4 <110> APPLICANT: Carballo-Jane, Ester
      5
              Lai, Wi S.
              Blackshear, Perry J.
      8 <120> TITLE OF INVENTION: TTP-RELATED ZINC FINGER DOMAINS AND METHODS OF USE
     10 <130> FILE REFERENCE: 14014.0349U2
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/049,586
C--> 12 <141> CURRENT FILING DATE: 2002-02-14
     12 <150> PRIOR APPLICATION NUMBER: PCT/US00/22199
     13 <151> PRIOR FILING DATE: 2000-08-14
     15 <150> PRIOR APPLICATION NUMBER: 60/148,810
     16 <151> PRIOR FILING DATE: 1999-08-13
     18 <160> NUMBER OF SEQ ID NOS: 45
     20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     22 <210> SEQ ID NO: 1
     23 <211> LENGTH: 326
     24 <212> TYPE: PRT
     25 <213> ORGANISM: Homo sapiens
     27 <400> SEQUENCE: 1
     28 Met Asp Leu Thr Ala Ile Tyr Glu Ser Leu Leu Ser Leu Ser Pro Asp
     30 Val Pro Val Pro Ser Asp His Gly Gly Thr Glu Ser Ser Pro Gly Trp
                    20
                                         25
     32 Gly Ser Ser Gly Pro Trp Ser Leu Ser Pro Ser Asp Ser Ser Pro Ser
                                     40
                35
     34 Gly Val Thr Ser Arg Leu Pro Gly Arg Ser Thr Ser Leu Val Glu Gly
                                 55
     36 Arg Ser Cys Gly Trp Val Pro Pro Pro Pro Gly Phe Ala Pro Leu Ala
                                                 75
                             70
     37 65
     38 Pro Arg Leu Gly Pro Glu Leu Ser Pro Ser Pro Thr Ser Pro Thr Ala
                                             90
     40 Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe
                                                             110
                                         105
     41
                    100
     42 Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln Phe Ala His
                                     120
     44 Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys Tyr Lys Thr
                                135
     46 Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser
                                                 155
                             150
     48 Arg Cys His Phe Ile His Asn Pro Ser Glu Asp Leu Ala Ala Pro Gly
                                             170
                        165
     50 His Pro Pro Val Leu Arg Gln Ser Ile Ser Phe Ser Gly Leu Pro Ser
                                         185
     52 Gly Arg Arg Thr Ser Pro Pro Pro Pro Gly Leu Ala Gly Pro Ser Leu
```



Input Set : A:\W127221.txt

53			195					200					205			
	Ser	Ser		Ser	Phe	Ser	Pro		Ser	Ser	Pro	Pro	Pro	Pro	Gly	Asp
56	501	210	001	001		501	215	-				220			-	-
	T.e.11		Len	Ser	Pro	Ser		Phe	Ser	Ala	Ala	Pro	Gly	Thr	Pro	Leu
	225	110	пси	001		230					235		2			240
		λνα	Δrα	Δsn	Pro		Pro	Val	Cvs	Cvs		Ser	Cvs	Ara	Arg	Ala
60	AIG	пта	nrg	Nob	245	1111	110		0,0	250			-1-	,	255	
	mh r	Dro	T10	Sor		ψrn	Clv	Dro	T.eu		Glv	Len	Val	Arσ	Thr	Pro
	1111	FIO	TTC	260	Vul	115	OLY	110	265	011	O I I			270		
62	C	1701	C1 ~		T 011	Clu	cor	λcn		λen	Glu	Tur	Δla		Ser	Glv
	ser	vaı		ser	теп	GTA	ser	280	PIO	кэр	Giu	ı yı	285	DCI	JCI	O.J.
64			275	a 1	a 1	C	3 an		Dwo	Wa 1	Dho	Clu		Clv	Va l	Dho
	Ser		Leu	СТА	СТА	ser		ser	PIO	val	PHE		Ата	GLY	Val	riic
66	_	290	_		_		295				3	300	Dwa	т1.	Dho	N an
		Pro	Pro	Gln	Pro		Ala	Ala	Pro	Arg		Leu	Pro	ire	Phe	
	305					310					315					320
69	Arg	Ile	Ser	Val	Ser	Glu										
70					325											
72	<210)> SI	EQ II	ОИС	: 2											
73	<213	L> LI	ENGTI	H: 30	38											
74	<212	2> T	YPE:	PRT												
75	<213	3> OI	RGAN	ISM:	Homo	sap	piens	3								
77	<400)> SI	EQUE	NCE:	2											
78	Met	Thr	Thr	Thr	Leu	Val	Ser	Ala	Thr	Ile	Phe	Asp	Leu	Ser	Glu	Val
79	1				5					10					15	
80	Leu	Cvs	Lys	Gly	Asn	Lys	Met	Leu	Asn	Tyr	Ser	Ala	Pro	Ser	Ala	Gly
81		- 1	-	20		-			25	_				30		
	G1 v	Cvs	Leu	Leu	Asp	Arg	Lvs	Ala	Val	Gly	Thr	Pro	Ala	Gly	Gly	Gly
83	0-1	-1-	35				1	40		-			45	_	_	
	Phe	Pro		Ara	His	Ser	Val	Thr	Leu	Pro	Ser	Ser	Lys	Phe	Arg	Gln
85	1 110	50	**** 9	*** 9	*****	552	55					60	-			
	Δen		T.e.11	T.eu	Ser	Ser		Lvs	Glv	Glu	Pro	Ala	Pro	Ala	Leu	Ser
	65	0111	пси	LCu	001	70	Lou	_10	0-1		75					80
07	Cor	λνα	λen	Sar	Δνα		Δra	Δsn	Ara	Ser		Ser	Glu	Glv	Gly	Glu
	Ser	AIG	кэр	Ser	85	Tine	mrg	пор	**** 9	90	1 110	501	0	0-1	95	
89	7	Tou	T 011	Dwo		Cln	Tvc	Cln	Dro		Clv	G1 v	Gln	Val	Asn	Ser
	Arg	Leu	Leu		1111	GIII	гуу	GIII	105	GTĀ	Gry	Gry	0111	110	11011	501
91				100	m h	01.	T	G		Dwo	Dho	C1.,	Clu		C117	λla
	ser	Arg		ьys	Thr	GIU	Leu		Arg	PIO	Pile	GIU	125	ASII	Gly	AIG
93	_	_	115		_	_	~	120	Dl		TT 2 -	C1		ni a	C111	Lou
94	Cys	Lys	Tyr	GLY	Asp	ьys	Cys	GIn	Pne	Ala	HIS	GIY	TTE	HIS	Glu	Leu
									_						•	mh
		Ser	Leu	Thr	Arg		Pro	Lys	Tyr	Lys		Glu	Leu	Cys	Arg	
97	145					150					155	_	_	1	-1	160
98	Phe	His	Thr	Ile		Phe	Cys	Pro	Tyr		Pro	Arg	Cys	His	Phe	TTE
99					165					170					175	_
10	O His	s As	n Ala	a Gl	u Gl	u Ar	g Ar	g Ala			a Gl	y Ala	a Ar			u Ser
10	1			18					18					19		
10	2 Ala	a Asj	p Ar	g Pro	o Ar	g Le	ı Gl	n Hi	s Se	r Phe	e Se	r Phe	e Ala	a Gl	y Ph	e Pro
10	3		19	5				20	0				20	5		
10	4 Se	r Ala	a Al	a Ala	a Thi	r Ala	a Ala	a Ala	a Th	r Gly	y Le	u Lei	u Ası	p Se	r Pr	o Thr



Input Set : A:\W127221.txt

Ser Tile Thr Pro Pro Pro Pro 11e Leu Ser Ala Asp Asp Leu Leu Gly Ser 107 225 235 240	105		210					215					220				
275	105	Sor		Thr	Pro	Pro	Pro		Leu	Ser	Αla	Asp		Leu	Leu	Gly	Ser
No. No.			116	1111	110	110		110		00-						•	
100			Thr	T. 🗕 11	Pro	Δsn		Thr	Asn	Asn	Pro		Ala	Phe	Ser	Ser	Gln
10 Glu Leu Ala Ser Leu Phe Ala Pro Ser Met Gly Leu Pro Gly Gly Gly 111 260 265 270		FIO	1111	шси	110		O ₁	* * * * * * * * * * * * * * * * * * * *									
111		Glu	Τ.Δ11	Δla	Ser		Phe	Ala	Pro	Ser		Glv	Leu	Pro	Glv	Gly	Gly
The law The		GIU	пси	AIG		DCu	1 110	1114				4-1				-	_
114		Sor	Dro	Thr		Phe	Len	Phe	Arσ		Met.	Ser	Glu	Ser	Pro	His	Met
Phe		261	FIO		1111	1110	ЦСи	1110				002		285			
116		Dho	λcn		Dro	Dro	Sar	Pro		Δsn	Ser	Len	Ser		Gln	Glu	Glv
The Tyr Leu Ser Ser Ser Ser Ser Ser Ser His Ser Gly Ser Asp Ser Pro Thr 117 305		FIIC		Der	110	110			01	пор							
117 305	116	m		Sor	Car	Sor			Ser	His	Ser	Glv		Asp	Ser	Pro	Thr
118 Leu Asp Asn Ser Arg Arg Arg Leu Pro 11e Phe Ser Arg Leu Ser I1e Ser 119			Leu	Ser	ser	Ser		261	261	1113	JCI	315	DCI	пор	001		320
119			Nan	λcn	cor	λκα		Lau	Dro	Tle	Dhe		Arσ	Len	Ser	Tle	
120		Leu	ASP	ASII	ser		Arg	Leu	FIU	TIC		JCI	nry	DCu	DCI		001
123		3	7.00			323					330					333	
124		_	_	TI	. NO.												
125																	
126						12											
128						TT											
129 Met Ser Thr Thr Leu Leu Ser Ala Phe Tyr Asp Val Asp Phe Leu Cys 130 1							Sap) Tell:	5								
130							T	0	7 1 n	Dho	M***	N an	Wa 1	A an	Dho	Lou	Cve
131		_	ser	Thr	Tnr		Leu	ser	Ald	Pne		ASP	vaı	wsħ	FIIE	15	Cys
132 20 25 30 133 Lys Lys Ala Val Gly Thr Pro Val Ala Ala Ala Pro Ser Gly Phe 134 35 40 40 45 45 45 135 Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Leu 136 50 70 70 75 60 75 80 138 65 70 70 75 75 80 139 Ala Ala Asn Gly Ser Ser Ala Ala Ala Ala Gly Pro Gly 140 85 70 70 75 75 80 70 75 80 141 Ser Tyr Gly Thr Leu Lys Gly Ser Gly Gly Gly Gly Thr Arg Arg Arg			-1	0. 1	-		T	» I -	3	T		T 011	N a n	λαη	Mot		λαρ
133 Lys Lys Ala Val Gly Thr Pro Val Ala Ala Ala Pro Ser Ser Gly Phe. 134		Lys	Thr	GIu		ser	Leu	Ala	ASII		ASII	Leu	ASII	ASII		пеп	кър
134 35 40 40 45 135 Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Leu 50 50 50 55 60 137 Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Phe Pro Gly 138 65 70 70 75 80 139 Ala Ala Ala Ala Ala Asn Gly Ser Ser Cys Gly Ser Ala Ala Ala Ala Gly Gly Pro Thr 140 85 90 95 141 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Gly Gly Thr Ala Leu 100 105 110 110 143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly 144 115 120 120 125 145 Asp Arg Ser Gln His Leu Leu Lys Gly Leu Arg Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 148 145 130 135 140 140 125 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly		_	_				m1		17- 1		31-	710	Dwo	Com		C117	Dho
135 Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Ala <td></td> <td>Lys</td> <td>Lys</td> <td></td> <td>Val</td> <td>GTĀ</td> <td>Thr</td> <td>Pro</td> <td></td> <td>Ala</td> <td>Ala</td> <td>Ald</td> <td>PIO</td> <td></td> <td>ser</td> <td>GIY</td> <td>PIIE.</td>		Lys	Lys		Val	GTĀ	Thr	Pro		Ala	Ala	Ald	PIO		ser	GIY	PIIE.
136 50 55 55 60 137 Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Pho Gly 138 65						_	_			a		.	3		TI i o	7 J -	T 011
137 Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Pro Gly Ser Pro Gly Ser Pro He Pro Gly Pro He Pro Gly Pro He Pro He Pro He Pro He Pro He Pro		Ala		GLY	Pne	Leu	Arg		HIS	ser	Ald	ser		ьeu	птэ	нта	Leu
138 65 70 70 75 80 139 Ala Ala Asn Gly Ser Ser Cys Gly Ser Ala Ala Ala Ala Gly Gly Pro Thr 140		_		_		_	_		~ 1		G	a		T	Dho	Dro	C1,,
139 Ala Ala Asn Gly Ser Cys Gly Ser Ala Ala Ala Ala Gly Pro Thr 140 85 90 90 90 95 141 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Thr Ala Leu 142 100 100 105 105 110 110 110 143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Glu Asn Gly 144 115 15 120 125 125 125 125 125 140 125 140 <td></td> <td></td> <td>His</td> <td>Pro</td> <td>Ala</td> <td>Pro</td> <td></td> <td>Pro</td> <td>GTA</td> <td>ser</td> <td>Cys</td> <td></td> <td>PIO</td> <td>гух</td> <td>Pne</td> <td>PIO</td> <td></td>			His	Pro	Ala	Pro		Pro	GTA	ser	Cys		PIO	гух	Pne	PIO	
140 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Thr Ala Leu 142 100 100 105 105 105 110 111 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 1	138	65		_	-1	~			01	0	*1-		710	c1	C1	Dro	
141 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Thr Ala Leu 142 100 100 105 105 110 110 110 143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Glu Asn Gly Incompatible Inco		Ala	Ala	Asn	GTĀ		ser	Cys	GIY	ser		Ald	Ата	СТУ	СТУ		1111
142 100 105 110 143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly 144 115 120 125 145 Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Lys Gly Gly 146 130 135 140 147 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 148 145 150 150 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 150 165 170 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 152 180 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala	140		_				-	~1	D	a		a1	C1	C1	mh ∽	-	Tou
143 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly 144 115 120 125 145 Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Gln Lys Gly Gly 146 130 135 140 147 Gly Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 148 145 150 155 160 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 165 170 175 175 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 155 190 155 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 200 205 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala		Ser	Tyr	GLŸ		Leu	гăг	GIU	Pro		GIY	GIY	СТА	СТА		нта	пец
144 115 120 125 145 Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Gln Lys Gly Gly 146 130 135 135 140 147 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 140 140 148 145 150 155 160 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 165 170 175 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 155 190 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 200 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala	142	_	_	_		_	_	D1 -			7		Dho	Con		∧ an	C111
145 Asp Arg Ser Gln His Leu His Leu His Leu Gln Phe Gln Phe Gln Phe Gln Phe His Gln Phe Interval In		Leu	Asn		Glu	Asn	Lys	Pne		Asp	Arg	ser	Pne		GIU	ASII	GIY
146 130 135 140 147 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 148 145 150 150 155 155 160 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 165 170 175 175 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 152 180 185 190 190 190 190 153 140					<u>.</u> .	•	_	_		.	01	a1	a 1 -		T ***	C1	C1.
147 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg 148 145 150 155 160 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 165 170 175 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 152 180 185 185 190 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 200 205 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala				Ser	GIn	His	Leu		HIS	Leu	GIn	GIn		GIII	ьуѕ	СТУ	GIY
148 145 150 155 160 149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe 150 165 170 175 151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 152 180 185 190 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 200 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala	146	_		_					1			T		a 1	т о	0	7 ~~~
149 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Gln Phe 150 165 170 175 175 175 175 151 Ala His Gly Phe His Glu Leu Arg Tyr Leu Thr Arg Tyr Leu Thr Arg Thr His Thr Thr Ile Gly Phe Cys Pro Tyr 153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 200 200 205 2			Gly	Ser	Gin	He		Ser	Thr	Arg	туr		Thr	GIU	ьeu	Cys	
150	148	145	_	_				_,	_	_	_		a 1	•	Q	a1	
151 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr 152		Pro	Phe	Glu	Glu		Gly	Thr	Cys	гàг		GTA	GIU	гĀг	Cys		rne
152	150							_		~		 ,		***	D		m
153 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr 154 195 200 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala		Ala	His	Gly		His	Glu	Leu	Arg		Leu	Thr	Arg	Hls		гÀг	Tyr
154 195 200 205 155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala	152												a :	5 ,		D	m
155 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala		Lys	Thr		Leu	Cys	Arg	Thr		His	Thr	He	GLY		Cys	Pro	тyr
																5	. 7
156 210 215 220		_		Arg	Cys	His	Phe		His	Asn	Ala	Asp		Arg	arg	Pro	Ата
	156	•	210					215					220				



Input Set : A:\W127221.txt

157 158		Ser	Gly	Gly	Ala	Ser 230	Gly	Asp	Leu	Arg	Ala 235	Phe	Gly	Thr	Arg	Asp 240
159 160	Ala				245	Phe		Arg		250					255	
161 162				260				Pro	265					270		
164			275					Leu 280					285			
166		290					295	Ala				300				
168	305					310		Ala			315					320
170					325			Ala		330					335	
172	_			340				Pro	345					350		
174			355					Ala 360					365			
176		370					375	Ile				380				
178	385					390		Ser			395					400
180					405			Pro		410					415	
182				420				Ser Val	425					430		
184			435					440 Ser					445			
186		450					455	Ser				460				
188	465					470		Ser			475			1	5	480
190		0> Si			485	ALG	БСС	JCI	110	490	1104					
		0/ 5. 1> L:														
		2> T														
		3> 01				opus	lae	vis								
197	<40	0> S	EQUE	NCE:	4	λαη	Sor	T All	Acn	T.011	Dhe	Ser	Ser	Phe	Phe	Pro
199	1				5					10					15	
201				20				Pro	25					30		
203			35					Ser 40					45			
205		50					55	Glu				60				
206 207		Cys	Gln	Phe	Ala	His 70	GLY	Leu	ser	GIU	Leu 75	Arg	PIO	PLO	val	Gln 80



Input Set : A:\W127221.txt

Output Set: N:\CRF3\03012002\J049586.raw

		Pro	Lys	Tyr		Thr	Glu	Leu	Cys		Ser	Phe	His	Val		Gly
209		_			85					90					95	_
	Thr	Cys	Asn		GTA	Leu	Arg	Cys		Phe	He	His	Ser		Gln	Glu
211				100					105					110		
212	Arg	Arg	Glu	Pro	Pro	Val	Leu	Pro	Asp	Asn	Leu	Ser	Leu	Pro	Pro	Arg
213			115					120					125			
214	Arg	Tyr	Gly	Gly	Pro	Tyr	Arg	Glu	Arg	Cys	Arg	Leu	Trp	Ser	Ala	Pro
215		130				_	135		_	_	_	140	_			
216	Glv	Gly	Cvs	Pro	Tvr	Glv	Ala	Ara	Cvs	His	Phe	Gln	His	Pro	Lvs	Ser
	145	-	-		-	150		,	2		155				_1	160
		Arg	Glu	Thr	Cvs	Ara	His	Phe	Ala	Ala		Glv	Asp	Cvs	Pro	
219		5			165	9			~	170		011	p	0,10	175	-1-
	Glv	Ala	Cve	Cve		Dho	Sar	Hic	Sar		Bro	Lau	λen	λκα		C117
221	GIY	Alu	Cys	180	1113	FIIC	Ser	1113	185	FIO	FIO	пец	кър	190	пр	СТУ
	Com	C1**	Шhт		1	C	C = ==	01		T	0	D	0		D	3
	ser	Gly		rys	ASN	ser	ser		ser	Leu	ser	Pro		Asp	Pro	Asp
223	_	_	195	_			_	200			_		205			
	Ser	Asp	Pro	Asp	Thr	Pro		Leu	Ser	Glu	Ser		Ala	Asn	Asn	Ala
225		210					215					220				
226	Phe	Ser	Phe	Ser	Ser	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Arg	Leu	Gln	Ile
	225					230					235					240
228	Leu	Gly	Asp	Asp	Asp	Leu	Pro	Thr	Ala	Ser	Asp	Pro	Leu	Pro	Gly	Asp
229					245					250					255	
230	Asp	Thr	Asp	Leu	Leu	Pro	Gly	Asp	Glu	Glu	Ile	Ala	Gln	Gly	Leu	Leu
231				260					265					270		
232	Ser	Val	Leu	Glv												
232																
232			275	1												
233			275	_	. 5											
233 235	<21	0> SI	275 EQ II	ONO:												
233 235 236	<210 <210	0> SI 1> LI	275 EQ II ENGTH	O NO:												
233 235 236 237	<210 <210 <210	0> SI 1> LI 2> TY	275 EQ II ENGTH (PE:	O NO: H: 32	27	rinad	. cai	rnio								
233 235 236 237 238	<210 <211 <211 <211	0> SI 1> LI 2> TY 3> OI	275 EQ II ENGTH (PE: RGAN)	O NO: H: 32 PRT ESM:	27 Cypi	rinas	s cai	rpio								
233 235 236 237 238 240	<210 <211 <211 <211 <400	0> SI 1> LI 2> TY 3> OF	275 EQ II ENGTH (PE: RGAN) EQUEN	O NO: H: 32 PRT ISM: NCE:	27 Cypi 5			-	Lou	Dho	Lou	Dho	Pro	mb r	Clu	Cl.
233 235 236 237 238 240 241	<210 <211 <211 <211 <400 Met	0> SI 1> LI 2> TY 3> OI	275 EQ II ENGTH (PE: RGAN) EQUEN	O NO: H: 32 PRT ISM: NCE:	Cypı 5 Ser			-	Leu		Leu	Phe	Pro	Thr		Gly
233 235 236 237 238 240 241 242	<210 <211 <211 <211 <400 Met	0> SI 1> LI 2> TY 3> OI 0> SI Phe	275 EQ II ENGTI (PE: RGAN) EQUEN Glu	NO: H: 32 PRT ISM: NCE: Thr	Cypı 5 Ser 5	Thr	Asp	Asn		10					15	
233 235 236 237 238 240 241 242 243	<210 <211 <211 <211 <400 Met	0> SI 1> LI 2> TY 3> OF	275 EQ II ENGTI (PE: RGAN) EQUEN Glu	PRT ISM: NCE: Thr	Cypı 5 Ser 5	Thr	Asp	Asn	Glu	10				Gly	15	
233 235 236 237 238 240 241 242 243 244	<210 <211 <211 <400 Met 1 Leu	0> SI 1> LI 2> TY 3> OF 0> SI Phe Asn	275 EQ II ENGTH (PE: RGAN) EQUEN Glu Glu	PRT ISM: NCE: Thr Ala	Cypi 5 Ser 5 Phe	Thr Phe	Asp Pro	Asn Glu	Glu 25	10 Gly	Leu	Ala	Ser	Gly 30	15 Ser	Leu
233 235 236 237 238 240 241 242 243 244 245	<210 <211 <211 <400 Met 1 Leu	0> SI 1> LI 2> TY 3> OI 0> SI Phe	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala	PRT ISM: NCE: Thr Ala	Cypi 5 Ser 5 Phe	Thr Phe	Asp Pro	Asn Glu Pro	Glu 25	10 Gly	Leu	Ala	Ser Pro	Gly 30	15 Ser	Leu
233 235 236 237 238 240 241 242 243 244 245 246	<210 <211 <211 <400 Met 1 Leu	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35	PRT ISM: NCE: Thr Ala 20	Cypi 5 Ser 5 Phe	Thr Phe Leu	Asp Pro Leu	Asn Glu Pro 40	Glu 25 Leu	10 Gly Val	Leu Glu	Ala Ser	Ser Pro 45	Gly 30 Ser	15 Ser Pro	Leu Pro
233 235 236 237 238 240 241 242 243 244 245 246 247	<210 <211 <211 <400 Met 1 Leu	0> SI 1> LI 2> TY 3> OF 0> SI Phe Asn	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35	PRT ISM: NCE: Thr Ala 20	Cypi 5 Ser 5 Phe	Thr Phe Leu	Asp Pro Leu	Asn Glu Pro 40	Glu 25 Leu	10 Gly Val	Leu Glu	Ala Ser Thr	Ser Pro 45	Gly 30 Ser	15 Ser Pro	Leu Pro
233 235 236 237 238 240 241 242 243 244 245 246 247 248	<210 <211 <211 <400 Met 1 Leu Ser	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35 Pro	PRT ISM: NCE: Thr Ala 20 Lys	Cypi 5 Ser 5 Phe Ala	Thr Phe Leu Cys	Asp Pro Leu Ser 55	Asn Glu Pro 40 Thr	Glu 25 Leu Arg	10 Gly Val Tyr	Leu Glu Lys	Ala Ser Thr	Ser Pro 45 Glu	Gly 30 Ser Leu	15 Ser Pro Cys	Leu Pro Ser
233 235 236 237 238 240 241 242 243 244 245 246 247 248	<210 <211 <211 <400 Met 1 Leu Ser	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35 Pro	PRT ISM: NCE: Thr Ala 20 Lys	Cypi 5 Ser 5 Phe Ala	Thr Phe Leu Cys	Asp Pro Leu Ser 55	Asn Glu Pro 40 Thr	Glu 25 Leu Arg	10 Gly Val Tyr	Leu Glu Lys	Ala Ser Thr	Ser Pro 45 Glu	Gly 30 Ser Leu	15 Ser Pro Cys	Leu Pro Ser
233 235 236 237 238 240 241 242 243 244 245 246 247 248	<210 <211 <211 <400 Met 1 Leu Ser Met	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35 Pro	PRT ISM: NCE: Thr Ala 20 Lys	Cypi 5 Ser 5 Phe Ala	Thr Phe Leu Cys	Asp Pro Leu Ser 55	Asn Glu Pro 40 Thr	Glu 25 Leu Arg	10 Gly Val Tyr	Leu Glu Lys	Ala Ser Thr	Ser Pro 45 Glu	Gly 30 Ser Leu	15 Ser Pro Cys	Leu Pro Ser
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35 Pro Ala	PRT (SM: NCE: Thr Ala 20 Lys Trp Glu	Cypi 5 Ser 5 Phe Ala Leu	Thr Phe Leu Cys Gly 70	Asp Pro Leu Ser 55 Thr	Asn Glu Pro 40 Thr	Glu 25 Leu Arg Lys	10 Gly Val Tyr	Leu Glu Lys Ala 75	Ala Ser Thr 60 Glu	Ser Pro 45 Glu Arg	Gly 30 Ser Leu Cys	15 Ser Pro Cys Gln	Leu Pro Ser Phe 80
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr	275 EQ II ENGTH (PE: RGANI EQUEN Glu Glu Ala 35 Pro Ala	PRT (SM: NCE: Thr Ala 20 Lys Trp Glu	Cypi 5 Ser 5 Phe Ala Leu	Thr Phe Leu Cys Gly 70	Asp Pro Leu Ser 55 Thr	Asn Glu Pro 40 Thr	Glu 25 Leu Arg Lys	10 Gly Val Tyr	Leu Glu Lys Ala 75	Ala Ser Thr 60 Glu	Ser Pro 45 Glu Arg	Gly 30 Ser Leu Cys	15 Ser Pro Cys Gln	Leu Pro Ser Phe 80
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250 251 252	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65 Ala	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr	275 EQ II ENGTH (PE: RGANI) EQUEN Glu Ala 35 Pro Ala Gly	PRT ESM: NCE: Thr Ala 20 Lys Trp Glu Leu	Cyprosers 5 Ser 5 Phe Ala Leu Thr His	Thr Phe Leu Cys Gly 70 Asp	Asp Pro Leu Ser 55 Thr	Asn Glu Pro 40 Thr Cys	Glu 25 Leu Arg Lys Val	10 Gly Val Tyr Tyr Pro 90	Leu Glu Lys Ala 75 Ser	Ala Ser Thr 60 Glu Arg	Ser Pro 45 Glu Arg	Gly 30 Ser Leu Cys	15 Ser Pro Cys Gln Lys 95	Leu Pro Ser Phe 80 Tyr
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250 251 252	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65 Ala	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr	275 EQ II ENGTH (PE: RGANI) EQUEN Glu Ala 35 Pro Ala Gly	PRT ESM: NCE: Thr Ala 20 Lys Trp Glu Leu	Cyprosers 5 Ser 5 Phe Ala Leu Thr His	Thr Phe Leu Cys Gly 70 Asp	Asp Pro Leu Ser 55 Thr	Asn Glu Pro 40 Thr Cys	Glu 25 Leu Arg Lys Val	10 Gly Val Tyr Tyr Pro 90	Leu Glu Lys Ala 75 Ser	Ala Ser Thr 60 Glu Arg	Ser Pro 45 Glu Arg	Gly 30 Ser Leu Cys	15 Ser Pro Cys Gln Lys 95	Leu Pro Ser Phe 80 Tyr
233 235 236 237 238 240 241 242 243 244 245 246 247 248 250 251 252 253 254	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65 Ala	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr His	275 EQ II ENGTH (PE: RGANI EQUEN Glu Ala 35 Pro Ala Gly Glu	D NO: H: 32 PRT ISM: ISM: Thr Ala 20 Lys Trp Glu Leu Leu 100	Cyprosers 5 Ser 5 Phe Ala Leu Thr His 85 Cys	Thr Phe Leu Cys Gly 70 Asp	Asp Pro Leu Ser 55 Thr Leu	Asn Glu Pro 40 Thr Cys His	Glu 25 Leu Arg Lys Val His 105	10 Gly Val Tyr Tyr Pro 90 Thr	Leu Glu Lys Ala 75 Ser	Ala Ser Thr 60 Glu Arg	Ser Pro 45 Glu Arg His	Gly 30 Ser Leu Cys Pro Cys 110	15 Ser Pro Cys Gln Lys 95 Val	Leu Pro Ser Phe 80 Tyr
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255	<210 <211 <211 <400 Met 1 Leu Ser Met Arg 65 Ala	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr	275 EQ II ENGTH (PE: RGANI Glu Glu Ala 35 Pro Ala Gly Glu Arg	D NO: H: 32 PRT ISM: ISM: Thr Ala 20 Lys Trp Glu Leu Leu 100	Cyprosers 5 Ser 5 Phe Ala Leu Thr His 85 Cys	Thr Phe Leu Cys Gly 70 Asp	Asp Pro Leu Ser 55 Thr Leu	Asn Glu Pro 40 Thr Cys His Tyr	Glu 25 Leu Arg Lys Val His 105	10 Gly Val Tyr Tyr Pro 90 Thr	Leu Glu Lys Ala 75 Ser	Ala Ser Thr 60 Glu Arg	Ser Pro 45 Glu Arg His Tyr Gln	Gly 30 Ser Leu Cys Pro Cys 110	15 Ser Pro Cys Gln Lys 95 Val	Leu Pro Ser Phe 80 Tyr
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256	<210 <211 <400 Met 1 Leu Ser Met Arg 65 Ala Lys	0> SI 1> LI 2> TY 3> OF Phe Asn Leu Thr 50 Tyr His Thr	275 EQ II ENGTH (PE: RGANI) EQUEN Glu Ala 35 Pro Ala Gly Glu Arg 115	PRT ISM: ISM: ICE: Thr Ala 20 Lys Trp Glu Leu 100 Cys	Cyproser Ser 5 Phe Ala Leu Thr His 85 Cys Leu	Thr Phe Leu Cys Gly 70 Asp Arg	Asp Pro Leu Ser 55 Thr Leu Thr	Asn Glu Pro 40 Thr Cys His Tyr His 120	Glu 25 Leu Arg Lys Val His 105 Asn	10 Gly Val Tyr Tyr Pro 90 Thr	Leu Glu Lys Ala 75 Ser Ala Lys	Ala Ser Thr 60 Glu Arg Gly Glu	Ser Pro 45 Glu Arg His Tyr Gln 125	Gly 30 Ser Leu Cys Pro Cys 110 Arg	15 Ser Pro Cys Gln Lys 95 Val	Leu Pro Ser Phe 80 Tyr Tyr Val
233 235 236 237 238 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256	<210 <211 <400 Met 1 Leu Ser Met Arg 65 Ala Lys	0> SH 1> LH 2> TY 3> OH 0> SH Phe Asn Leu Thr 50 Tyr His	275 EQ II ENGTH (PE: RGANI) EQUEN Glu Ala 35 Pro Ala Gly Glu Arg 115	PRT ISM: ISM: ICE: Thr Ala 20 Lys Trp Glu Leu 100 Cys	Cyproser Ser 5 Phe Ala Leu Thr His 85 Cys Leu	Thr Phe Leu Cys Gly 70 Asp Arg	Asp Pro Leu Ser 55 Thr Leu Thr	Asn Glu Pro 40 Thr Cys His Tyr His 120	Glu 25 Leu Arg Lys Val His 105 Asn	10 Gly Val Tyr Tyr Pro 90 Thr	Leu Glu Lys Ala 75 Ser Ala Lys	Ala Ser Thr 60 Glu Arg Gly Glu	Ser Pro 45 Glu Arg His Tyr Gln 125	Gly 30 Ser Leu Cys Pro Cys 110 Arg	15 Ser Pro Cys Gln Lys 95 Val	Leu Pro Ser Phe 80 Tyr Tyr Val



Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.





VERIFICATION SUMMARY
PATENT APPLICATION: US/10/049,586

DATE: 03/01/2002 TIME: 14:44:20

Input Set : A:\W127221.txt

Output Set: N:\CRF3\03012002\J049586.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27